Trend Study 9-15-00

Study site name: Mud Springs Draw . Range type: Mixed Mountain Brush .

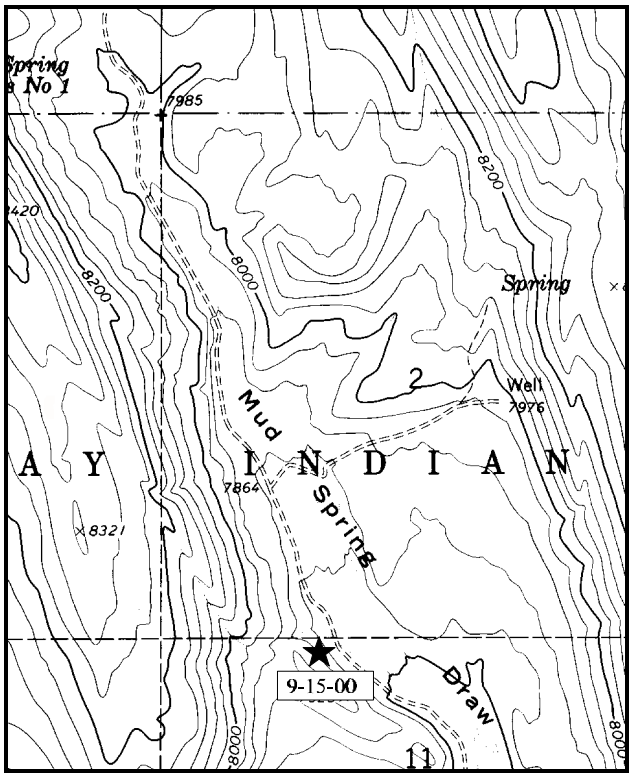
Compass bearing: frequency baseline 328°M .

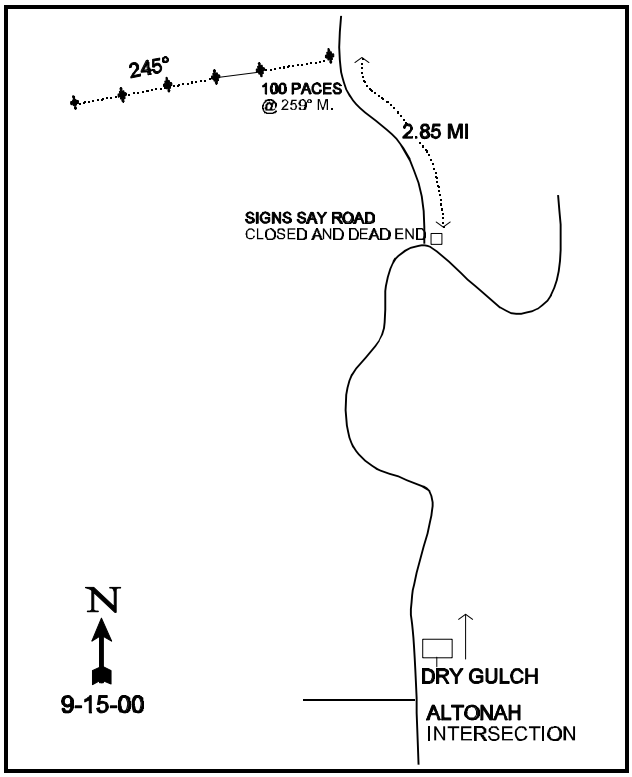
First frame placement on frequency belts 5 feet. Frequency belt placement; line 1 (7 & 96ft), line 2 (32ft), line 3 (50ft), line 4 (79ft).

LOCATION DESCRIPTION

From the town of Altonah, proceed north for 2.0 miles to an intersection. Take the road which runs to the northwest for 2.65 miles until you come to another intersection. Go straight through the intersection and go up Mud Spring Draw for 2.85 miles to a red stake on the left side of the road. From the stake, the 0-foot baseline stake is 125 paces away at a bearing of 252°M. The frequency baseline stakes are marked by green steel fenceposts cut to 12-18" in height.

**Roads closed onto the reservation from the south and north.





Map Name: Burnt Mill Springs Diagrammatic Sketch

Township 1N , Range 4W , Section 11 UTM 4483993 N, 558392 E

DISCUSSION

Trend Study No. 9-15 (12-4)

*** This study was not read in 2000 and will be discontinued due to road closures. Only text is included here. For maps and data tables refer to the 1995 Big Game Range Trend Studies report.

The Mud Spring Draw study is located within the Ute Indian Reservation in Mud Spring Draw at approximately 7,000 feet elevation. Cattle grazing and winter use by big game are the principal resource values. The range type is mixed mountain brush with a westerly aspect and a 50% slope.

Soils are rocky and moderately shallow with numerous large rocks on the surface. Vegetation and litter cover are abundant and adequately protect the soil from erosion.

The key preferred browse species is true mountain mahogany which accounts for 50% of the browse cover on the site. Population density has remained somewhat similar in 1982 and 1995, with a notable increase in 1988 due mostly to an increase in the number of young (69% of population was classified as young). This portion of the population can easily be lost when experiencing prolonged drought. Percent decadence is low and vigor generally good. Utilization is light to moderate with heavier use reported in 1988.

Other important secondary species include: serviceberry, mountain big sagebrush, antelope bitterbrush and snowberry. Together these species contribute to 26% of the browse cover. Serviceberry, mountain big sagebrush, and bitterbrush number from 500 to 600 plants/acre. They exhibit moderate to heavy hedging. Sagebrush displays a slightly increased decadency from 1988 (36%, but still quite high) and heavy use. Dead plants number 460 plants/acre which means that almost 50% are dead.

Grasses and forbs are diverse and quite abundant. They provide a total cover of 9%, while forbs account for 12% cover. Bluebunch wheatgrass, slender wheatgrass, Carex, and mutton bluegrass are the most abundant grass species. Annual forbs dominate the forb component with 8 species accounting for 68% of the forb cover. Common perennial species include: hooker balsamroot, sulfur eriogonum and silvery lupine.

1982 APPARENT TREND ASSESSMENT

Current soil condition is fair with an apparent stable to perhaps slightly downward trend. In spite of good vegetative and litter cover, some soil loss is occurring. Slope steepness (50%) is undoubtedly a major contributing factor. Vegetative conditions look good for trend, from a big game winter range standpoint, it appears stable to improving. The condition of the key browse species is especially encouraging.

1988 TREND ASSESSMENT

The soil trend on this site is improving due to the accumulation of litter and minimal evidence of soil movement. Slightly less bare soil was measured in 1988 due to increases in the percentage of basal vegetative cover. The key browse species, true mountain mahogany, continues on an upward trend. It was rated in excellent condition. Individuals were moderately hedged, in good vigor, with few decadent shrubs. Browsing appears to have increased over the years, but it is still well within acceptable levels. Although frequency of the several valuable browse species was unchanged, density of the mountain mahogany, serviceberry and big sagebrush increased. These shrubs also have healthy populations of young plants. In 1988, these species were classified as 16% heavily hedged, 53% moderately hedged and the remainder only lightly used. Trend for the herbaceous understory is improving with significant increases in quadrat frequency for grasses and forbs.

TREND ASSESSMENT
soil - improved (4)
browse - slightly up for key species (4)
herbaceous understory - up (5)

1995 TREND ASSESSMENT

Soil conditions continue to improve. Litter cover declined from 72% to 57%, likely due to prolonged drought, but percent bare ground declined to only 4%. Trend for the key browse species is slightly improved since 1988. Less seedling and young plants were encountered in 1995, but the number of mature plants has remained stable since 1982. It appears that some mature plants might have been classified as young in 1988 resulting in a lower population density for mature plants and an inflated estimate of young plants. Currently, percent decadence is low, vigor is good, and utilization is moderate. Trend for the herbaceous understory is slightly down for grasses, but improved for forbs. Overall the trend appears stable.

TREND ASSESSMENT
soil - up slightly (4)
browse - slightly improved (4)
herbaceous understory - stable (3)